

pubescence, the scutellum posteriorly and post-scutellum with rather long, bright fulvous pubescence; enclosure of metanotum reticulated at base. Wings fusco-hyaline; nervures, stigma and tegulæ dull testaceous. Legs black, apical joints of tarsi ferruginous. Abdomen finely roughened and feebly punctured, apical margins of segments narrowly pale testaceous, with thin fasciæ of pale pubescence, anal fimbria fuscous. Length 8 mm.

♂.—Resembles the female, the pubescence a little paler; the clypeus yellow, with a triangular black spot on each side; basal process of labrum subquadrate, shorter than broad. Length 5—7 mm.

Hab.—Florida; twenty-six female, eight male specimens. This species closely resembles *A. flavo-clypeata* Sm., but may be distinguished by its darker wings, fulvous pubescence, etc.

The Phalangida Mecostethi of the United States.

BY NATHAN BANKS.

The Mecostethi (Laniatores) have two claws to each of the four posterior tarsi, or else a compound claw; the Plagiostethi (Palpatores) have one simple claw to the tarsus of each leg. Two families of the Mecostethi have been recorded from the United States in the following literature:

Say.—An Account of the Arachnids of the United States, Journ. Acad. Nat. Sci. 1821; Complete Writings, LeConte.

Tellkampff.—Beschr. ein neu i. d. Mammuth-Höle in Kentucky aufgefunden. Gattung. v. Gliederthieren, Arch. f. Naturgesch. 1844.

Cope.—On the Wyandotte Cave and its fauna, Am. Nat. 1872.

Simon.—Opiliones Mecostethi, Ann. Soc. Ent. Belg. 1879.

Hubbard.—Two days' collecting in the Mammoth Cave, etc., Am. Ent. 1880.

Packard.—New Cave Arachnida, Am. Nat. 1884.

Packard.—The Cave Fauna of North America, etc., Nat. Acad. Sci. 1887 (?)

The two families may be separated as follows:

Hind pair of coxæ free at apex, spiracles obscure.....PHALANGODIDÆ.
Hind coxæ wholly united to the venter, spiracles distinct.....COSMETIDÆ.

Our species of Cosmetidæ apparently belong to one genus, which has some of the characters of *Cynorta*, and some of *Vonones*. As *Cynorta* is the older and best known, I adopt that name for them. The eye-tubercle is almost obliterated, with only a few small granules, the eyes widely separated, the legs short and tarsus I with five joints. The palpi have the second joint short, concave within; the third still shorter, widest at tip; the fourth longer than the others, with the sides flattened; the fifth short, with a long claw. The palpi are usually appressed to the face, so as to cover the mandibles. The three species known to me are separable as follows:

Two acute spines near end of dorsal shield.....	ornata.
Two rounded tubercles instead of spines.....	Sayii.
Neither spines nor tubercles	bimaculata.

Cynorta ornata Say.

This species is found in the southeastern part of the United States, usually under rotten logs. The young are lighter colored, and with long, slender palpi.

Cynorta Sayii Simon.

This was described as *ornata* Say by Wood, but is plainly a different species. It is usually without the white lines on the dorsum that are so common in *ornata*. It ranges somewhat more northward than that species, extending up to Kansas. It is found under and among dead leaves.

Cynorta bimaculata n. sp. Length 4 mm.; width 2.9 mm.; femur IV 2.5 mm.—Color: dorsum brownish red, with two long, somewhat lunate white spots near the end of the dorsal shield; venter red. Legs yellowish, marked with fuscous toward their tips. Body finely granulate, without large tubercles or spines; hind margins of the posterior segments furnished with a row of small tubercles. Legs 4-2-3-1; femora III and IV curved; patellæ and tibiæ III and IV roughened.

A smaller species with shorter legs than the other two. San Diego, Cal.; given me by Dr. Geo. Marx.

The Phalangodidæ are represented by four genera:

But one compound claw to each of the four posterior tarsi; palpi not as long as the body. **Sclerobunus.**

Two simple claws to each posterior tarsus.

Eye-tubercle pointed, arising from the anterior margin; palpi shorter than the body..... **Sitalces.**

Eye-tubercle arising from the middle of the cephalothorax; palpi as long as body.

Second joint of palpi more than three times as long as wide; legs very long.

Phalangodes.

Second joint of palpi about twice as long as wide; legs much shorter.

Scotolemon.

Phalangodes Tellk.

Acanthocheir Lucas.

Phrixis Cope.

This differs from *Scotolemon* in having much longer legs and more slender palpi. We have two species:

Eyes none, no spines on body; cave form..... **armata.**

Eyes present, spines on body, non-cavernicolus..... **spinifera.**

Phalangodes armata Tellk.

Phrixis longipes Cope.

Mammoth Cave, Kentucky.

Phalangodes spinifera Pack.

Southern Florida.

Scotolemon Lucas.*Phalangodes* Simon et Packard (in part).*Erebomaster* Cope.*Ptychosoma* Sorer.**Scotolemon flavescens** Cope.

This was described from Wyandotte Cave; it has since been found in caves in Virginia and Kentucky. What I consider as the same species occurs under stones on the Virginia shore of the Potomac near Washington, D. C. This out-of-door form does not differ much from cave specimens; there are three quite large projections near the base of the second joint of palpi. All the forms vary in the number of tarsal joints. Some cave specimens are blind, and form the variety *cæcum* Pack.; others from Weyer's Cave are darker and spotted, and form the variety *weyerensis* Pack.

SITALCES Simon.

This genus is given by Simon to two species from the Isle of Reunion; a form from California seems to belong to the genus, or else it will form a new genus closely allied to *Sitalces*.

Sitalces californica n. sp. Length 2 mm.—Color yellow, venter paler, legs whitish towards the tips. Body oval, truncated in front, rounded behind; cephalothorax about twice as wide as long, the suture separating it from the abdomen obsolete at the sides, the surface finely granulated, with a few larger granules near the meson and some on the posterior sides. Eye-tubercle large, arising from the anterior margin, about one-half the length of the cephalothorax, much roughened and finely granulated; eyes near the base of the tubercle. Anterior segments of the abdomen united, finely granulated and with about six transverse rows of larger granules or tubercles, somewhat irregular on the anterior sides, the posterior rows larger than the anterior; beyond are three transverse scutæ or segments, connected by a yellowish membrane; these have a row of tubercles on their posterior margin, and the last scuta also a row on its anterior margin; seven finely granulated scutæ on the venter. Palpi with the first joint short; second more than twice as long, with three projections below, roughened above; third short, gradually enlarged from base to tip, with two projections above and one below; fourth longer than the third, with two large projections below and several short ones above; fifth joint shorter and smaller than the fourth, about as long as the third, with two projections below, the claw at tip long and stout; all the projections tipped with stiff hairs as usual. Legs short, finely roughened with many short hairs.

One specimen has a large spine on the hind trochanter. Southern California.

SCLEROBUNUS gen. nov.

Each of the four posterior tarsi has but one claw, which has on its sides one or two curved projections. The palpi are shorter than the body, and the dorsal shield shows traces of the basal abdominal segments. The eye-tubercle is rounded, situated near, but not quite upon, the anterior margin. Otherwise the genus is similar to *Scotolemon*. *S. robustus* is the type; two species are known to me.

Color red, tips of legs black.....**robustus.**
 Color brown, tips of legs yellowish.....**brunneus.**

Sclerobunus robusta Pack.

Packard first described this under the genus *Scotolemon*, afterward referred it to *Phalangodes*. His figure of the palpus on Plate XII (Cave Memoir) is poorly drawn, there being no third joint represented. The figure in the text (Cave Memoir, p. 48) is probably that of a male, the female has the second joint of the palpi less gibbose than the male. The four posterior claws have one large projection each side. The anterior femora have three or four little tubercles, tipped with a stiff hair.

It was described from Utah. I have it from Colorado and Washington State (Trevor Kincaid).

Sclerobunus brunneus n. sp. Length 2 mm.--Color brown, paler on the cephalothorax; legs brown, a little darker than the body, their tips yellow; palpi yellow; venter brownish yellow. The eye-tubercle is rounded like *robustus*, a little closer to the anterior margin than in that species. The dorsum and legs have many little tubercles, each tipped with a stiff hair or bristle. These are quite prominent on the tibiae and patellae of the legs; there are two of these tubercles near the base of femur I. The palpi are very short, not half the length of the body; joint two is not as enlarged as in *robustus*, about twice as long as wide, and with two short projections below; joint four is barely longer than wide, and has two projections below; joint five is nearly as long as joint two, and has four or five projections below; the claw is nearly one-half as long as the joint. The legs are very short; leg I not as long as the body, femur II not as long as the cephalothorax is wide. The four posterior claws have two curved projections each side.

Washington State (Trevor Kincaid).